

## REMARKS

### I. Status of Claims

Claims 1-6 and 15-20 are pending and subject to examination. Claim 1 has been amended to more particularly define the claimed invention. Claims 15 and 16 have been amended to correct their dependencies. Claims 7-14 have been canceled without prejudice or disclaimer. In addition, new claims 17-20 have been added. Support for the claim amendments and the new claims 17-20 can be found in the original specification. *See e.g.*, paragraphs [00024]-[00026], [00028] and [00077].

In the present Amendment, a brief description of Figure 5 has been added. Support for this amendment can be found in Fig. 5, as well as in the parent application, i.e., U.S. Application No. 09/561,747, which issued as U.S. Patent No. 6,706,053 ("the '053 patent") on March 16, 2004. *See* the '053 patent, col. 6, lines 17-18.

In addition, paragraph [00052] of the specification has been amended to correct a clear error, replacing the reference sign of "68" with "65," because it is clear from the same paragraph [00052], lines 3-4, that the "truncated diamond shape" is referred to by the reference sign of "65" not "68." Thus, new matter has not been added.

Applicants also replace original sheet 1/3 with Replacement Sheet 1/3. The sole difference between the original and Replacement Sheet 1/3 is that the Replacement Sheet contains the reference sign "47" in Figure 2. In view of the specification, paragraphs [00047] and [00048], and original Figure 2, one of ordinary skill in the art understands that the distal end 47 of the sheath 48 refers to the end of the sheath 48 having a vertical line, as shown in the Replacement Sheet.

Applicants' failure to label the distal end of the sheath 48 with a reference sign in the original sheet 1/3 is a clear error that has been corrected herewith. Thus, Applicants have not introduced any new matter by the amendments.

## **II. Objection to the Drawings**

The Examiner objects to the drawings as failing to comply with 37 C.F.R. § 1.84(p)(5), because the Examiner alleges that the drawings do not include the reference sign of "47" recited in paragraph 47, page 12, and the reference sign of "68" recited in paragraph 52, page 13, of the originally-filed specification. Office Action, page 2.

Figure 2 has been amended to include the reference sign of "47" referring to the distal end of the sheath 28. See attached Replacement Sheet 1/3.

In addition, paragraph [00052] of the specification has been amended to correct a clear error, i.e., changing the reference sign of "68" to "65." Therefore, there is no need to amend the drawings.

Accordingly, Applicants respectfully request that this objection be withdrawn.

## **III. Objection to the Specification**

The Examiner also objects to the specification because under "Brief Description of the Drawings," "applicant has omitted a description of figure five." Office Action, page 2.

Description of Figure 5 has been added as shown above in the Amendments to the Specification. Therefore, Applicants respectfully request that this objection be withdrawn.

#### IV. § 103(a) Rejections

##### A. Claims 1, 2, 4 and 6-16

The Examiner rejects claims 1, 2, 4, and 6-16 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,910,154 to Tsugita et al. ("*Tsugita*") in view of U.S. Patent No. 5,341,818 to Abrams et al. ("*Abrams*"). Office Action, pages 3, 4, and 6-9. Specifically, the Examiner alleges that *Tsugita* "discloses the invention substantially as claimed, including a 'self-expanding strut assembly' (54) including a nickel-titanium alloy" (citing col. 8, lines 48-50) and "a 'filter element' (60) disposed on the strut assembly" (citing Figures 6A and 6B). *Id.* at page 3. However, the Examiner admits that *Tsugita* "does not disclose the nickel-titanium alloy contain[ing] a ternary element (platinum, palladium, or tantalum) and the alloy having a hysteresis curve" as presently claimed. *Id.* at page 3, 6, and 7.

To remedy this deficiency, the Examiner relies on *Abrams*, alleging that *Abrams* "teaches a nickel-titanium alloy with a ternary element of platinum or palladium" (citing col. 6, the last paragraph) "with a hysteresis curve" as presently claimed (citing Figure 2) "to help provide an expanded strain range at very high stresses" (citing col. 7, lines 10-14). *Id.* at pages 3-4 and 6-8. Therefore, the Examiner concludes that it would have been obvious to use the alloy disclosed in *Abrams* to make the strut assembly disclosed in *Tsugita* "to help provide an expanded strain range at very high stresses." *Id.* at pages

4 and 6-8. Applicants respectfully disagree and traverse this rejection for at least the following reasons.

To establish a *prima facie* case of obviousness, three basic criteria must be met, including that the prior art reference teach or suggest all the claim limitations and that there is some suggestion or motivation, either in the reference or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references. M.P.E.P. § 2143. The suggestion to modify or combine must be found in the prior art reference, not in the applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991).

Here, the Examiner has failed to show that *Tsugita* and *Abrams* teach or suggest all the claim limitations of the rejected claims. Specifically, *Tsugita* and *Abrams* do not teach or suggest the superelastic alloy exhibiting "a decreased stress hysteresis due to a lowered loading plateau stress compared to that of the superelastic alloy without the at least one ternary element" as recited in, for example, claim 1 as currently amended.

Even if the superelastic alloy disclosed in *Abrams* has the same content as the claimed superelastic alloy, as one of ordinary skill in the art understands, the property of an alloy depends not only on the alloy's content, but also on the method and condition under which the alloy is formed. The Examiner has failed to point to any evidence of a suggestion or motivation to pick and choose that superelastic alloy with a decreased stress hysteresis due to a lowered loading plateau stress from the broad genus of alloys disclosed in *Abrams*.

Indeed, neither *Tsugita* nor *Abrams* recognizes the importance of using a superelastic alloy with a decreased stress hysteresis due to a lowered loading plateau

stress to make a strut assembly in a filtering system as presently claimed. The prior art references certainly do not appreciate the benefits associated with the claimed invention. *See, e.g.*, paragraph [00025] (teaching that “because of the smaller hysteresis [i.e., decreased hysteresis] and lower loading plateau stress relative to the unloading plateau stress for a giving level of performance, the delivery system including the sheath can be made of a thinner wall material, leading to better flexibility.”).

In addition, the Examiner has failed to point to any evidence of a suggestion or motivation to use the superelastic alloy disclosed in *Abrams* to make the strut assembly disclosed in *Tsugita*.

*Tsugita* discloses a filtering system comprising struts, which “generally comprise substantially resilient materials such as stainless steal or nitinol, with stainless steal being preferred.” *Tsugita*, col. 8, lines 48-50. By teaching that stainless steal is a preferred embodiment over nitinol for making the struts, *Tsugita* indeed does not encourage the use of nitinol, let alone use of the superelastic alloy disclosed in *Abrams*, i.e., nickel-titanium alloy containing a ternary element, to make the struts disclosed in *Tsugita*, as alleged by the Examiner.

Further, the sole motivation alleged by the Examiner to use the superelastic alloy disclosed in *Abrams* to make the strut assembly disclosed in *Tsugita* is to “help provide an expanded strain range at very high stresses.” Office Action, pages 3-4. However, the superelastic alloy used in *Abrams* is for making guidewires, **not** struts. *See Abrams*, col. 4, lines 13-15. The Examiner has failed to show why the property of an expanded strain range at very high stresses of the superelastic alloy disclosed in *Abrams* is important for making a strut assembly.

Therefore, as the Examiner has failed to establish a *prima facie* case of obviousness, Applicants respectfully request that this rejection be withdrawn. For the same reason, the new claims 17-20 are patentable under Section 103(a) over *Tsugita* in view of *Abrams*.

**B. Claims 3 and 5**

The Examiner also rejects claims 3 and 5 as being unpatentable over *Tsugita* in view of *Abrams* and further in view of U.S. Patent No. 5,713,853 to Clark et al. ("*Clark*"). Office Action, pages 5-6. Applicants respectfully disagree and traverse this rejection for at least the following reasons.

As discussed above, the Examiner has failed to show that *Tsugita* and *Abrams* teach or suggest all the limitations of, for example, claim 1 as currently amended. The Examiner has also failed to show that *Tsugita* and *Abrams* provide the requisite suggestion or motivation to combine their teachings. Furthermore, the Examiner merely relies on *Clark* for its teachings of the strut assembly being "cut from a tube with truncated diamond shape opening" or including "a pattern that is laser cut from a tube." *Id.* Therefore, *Clark* does not remedy the deficiencies of *Tsugita* and *Abrams*.

Accordingly, this rejection is also improper, and Applicants respectfully request that it be withdrawn. For the same reason, the new claims 17-20 are patentable under Section 103(a) over *Tsugita* in view of *Abrams* and further in view of *Clark*.

**V. Conclusion**

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.


If the Examiner believes a telephone conference would be useful in resolving any outstanding issues, he is invited to call the Applicants' undersigned representative at (202) 408-4218.

If there is any fee due in connection with the filing of this response, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

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By:   
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Ningling Wang  
Reg. No. 52,412